Netzröhre für W-Heizung
indirekt geheizt
Parallelspeisung
AC-Heating
indirectly heated
connected in parallel

TELEFUNKEN

EL 34

Endpentode
Power pentode

U_f	**6,3**	V
I_f	1,5	A

Meßwerte · Measuring values

U_a	**250**	V
U_{g3}	**0**	V
U_{g2}	**265**	V
U_{g1}	−13,5	V
I_a	**100**	mA
I_{g2}	14,9	mA
S	11	mA/V
R_i	15	kΩ
$\mu_{g2/g1}$	11	
U_{g1e} (I_{g1} = +0,3 μA)	−1,3	V

Betriebswerte · Typical operation

Eintakt-A-Betrieb · Class A-amplifier

U_b	**265**	**265**	V
U_a	**250**	**250**	V
U_{g3}	**0**	**0**	V
R_{g2}	**2**	–	kΩ
U_{g1}	**−14,5**	−13,5	V
I_a	70	**100**	mA
I_{g2}	10	14,9	mA
R_a	3	2	kΩ
U_{g1eff} (N)	9,3	8,7	V
N (10 %)	8	11	W
U_{g1eff} (50 mW)	0,65	0,5	V

Als Triode geschaltet
Connected as Triode
g_2 an a, g_3 an k

U_{ag2}	**375**	V
R_k	**370**	Ω
I_a+I_{g2}	70	mA
$I_a+I_{g2\,(ausgest.)}$	74	mA
R_a	3	kΩ
U_{g1eff} (N)	18,9	V
N (8 %)	6	W
U_{g1eff} (50 mW)	1,7	V

Betriebswerte · Typical operation

2 Röhren in Gegentakt-AB-Betrieb
2 tubes push-pull, class AB

U_b	**375**	V
U_a+U_{Rk}	**355**	V
U_{g3}	**0**	V
R_{g2} [1])	**470**	Ω
R_k [1])	**130**	Ω
I_a	2×75	mA
$I_{a\,ausgest.}$	2×95	mA
I_{g2}	2×11,5	mA
$I_{g2\,ausgest.}$	2×22,5	mA
R_{aa}	3,4	kΩ
U_{g1eff} (N)	21	V
N (5 %)	35	W

Als Trioden geschaltet
Connected as Triode
g_2 an a, g_3 an k

U_{ag2}	**400**	V
R_k [1])	**220**	Ω
I_a+I_{g2}	2×65	mA
$I_a+I_{g2\,(ausgest.)}$	2×71	mA
R_{aa}	5	kΩ
U_{g1eff} (N)	22	V
N (3 %)	16,5	W

[1]) gemeinsam · common.

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2 Röhren in Gegentakt-B-Betrieb
2 tubes push-pull, class B

U_b	**350**	**375**	**400**	**425**	V
U_a	**325**	**350**	**375**	**400**	V
U_{g3}	**0**	**0**	**0**	**0**	V
R_{g2} 1)	**470**	**470**	**1000**	**1000**	Ω
U_{g1}	**−32**	**−32**	**−38**	**−38**	V
I_a	2×35	2×35	2×30	2×30	mA
$I_{a\,ausgest.}$	2×93	2×120	2×100	2×120	mA
I_{g2}	2×4,7	2×4,7	2×4,4	2×4,4	mA
$I_{g2\,ausgest.}$	2×25	2×25	2×25	2×25	mA
R_{aa}	3,8	2,8	4	3,4	kΩ
U_{g1eff} (N)	22,7	22,7	27	27	V
N	36	44	45	55	W
k_{ges}	6	5	6	5	%

U_{ba}	**475**	**500**	**750**	**800**	V
U_a	**450**	**475**	**725**	**775**	V
U_{bg2}	**375**	**400**	**375**	**400**	V
R_{g2} 1)	**750**	**750**	**750**	**750**	Ω
U_{g3}	**0**	**0**	**0**	**0**	V
U_{g1}	**−36**	**−36**	**−39**	**−39**	V
I_a	2×30	2×30	2×25	2×25	mA
$I_{a\,ausgest.}$	2×102	2×125	2×84	2×91	mA
I_{g2}	2×4	2×4	2×3	2×3	mA
$I_{g2\,ausgest.}$	2×25	2×25	2×19	2×19	mA
R_{aa}	5	4	11	11	kΩ
U_{g1eff} (N)	25,8	25,8	23,4	23,4	V
N	58	70	90	100	W
k_{ges}	6	5	6	5	%

1) R_{g2} gemeinsam.
R_{g2} common.



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EL 34

Grenzwerte · Maximum ratings

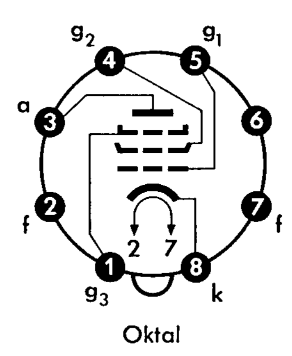
U_{ao}	**2000**	V
U_a	**800**	V
N_a	**25**	W
$N_{a\ ausgest.}$	**27,5**	W
U_{g2o}	**800**	V
U_{g2}	**425**	V
N_{g2}	**8**	W
I_k	**150**	mA
R_{g1} [1]	**0,7**	MΩ
R_{g1} [2]	**0,5**	MΩ
$U_{f/k}$	**100**	V
$R_{f/k}$	**20**	kΩ
t_{Kolben}	**245**	°C

[1]) A-Betrieb, AB-Betrieb
[2]) B-Betrieb

Kapazitäten · Capacitances

c_{g1}	ca. 15,2	pF
c_a	ca. 8,4	pF
$c_{g1/a}$	< 1,1	pF
$c_{g1/f}$	< 1	pF
$c_{k/f}$	ca. 10	pF

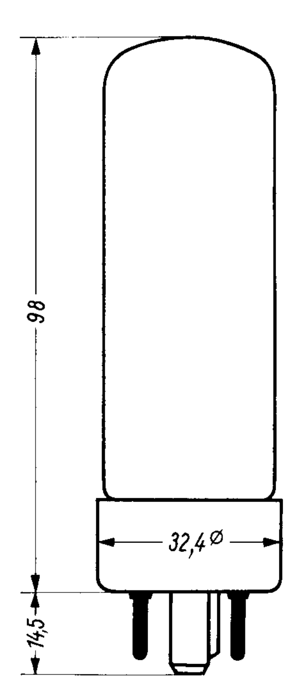
Sockelschaltbild
Base connection



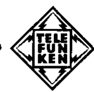
Oktal

Freie Stifte bzw. freie Fassungskontakte dürfen nicht als Stützpunkte für Schaltmittel benutzt werden.
Free pins not to be connected externally.

max. Abmessungen
max. dimensions

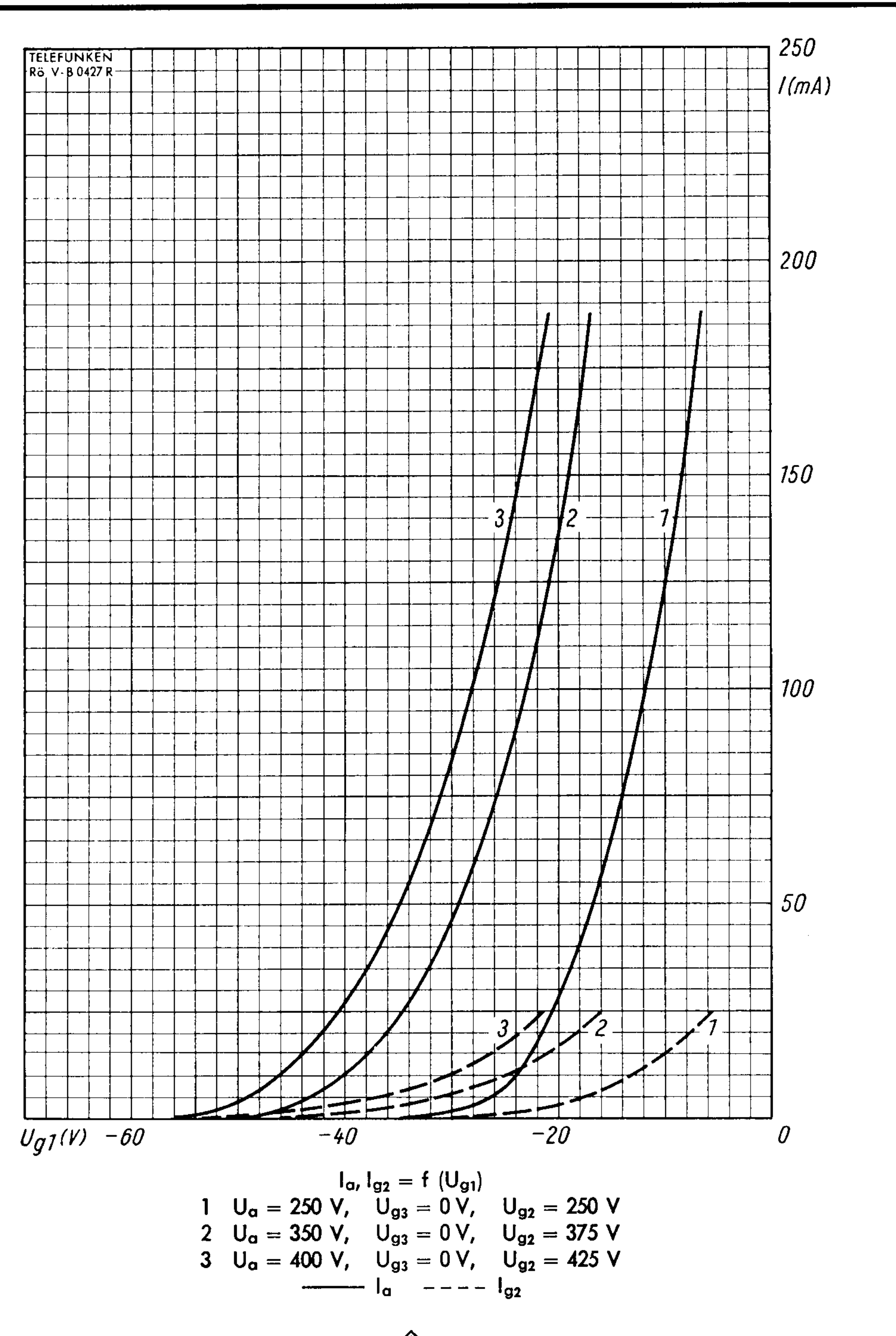


Gewicht · Weight
max. 50 g



020961

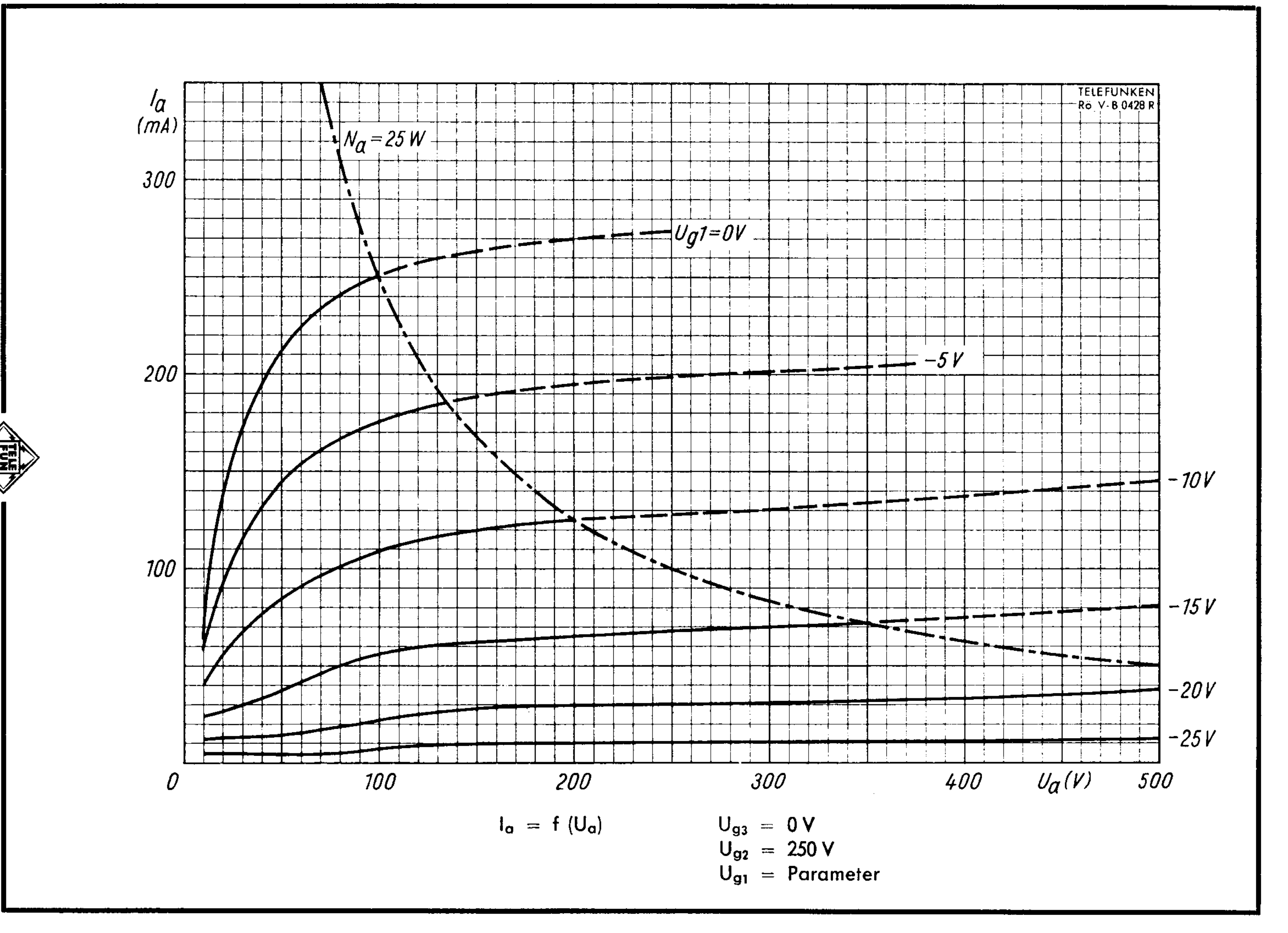
TELEFUNKEN



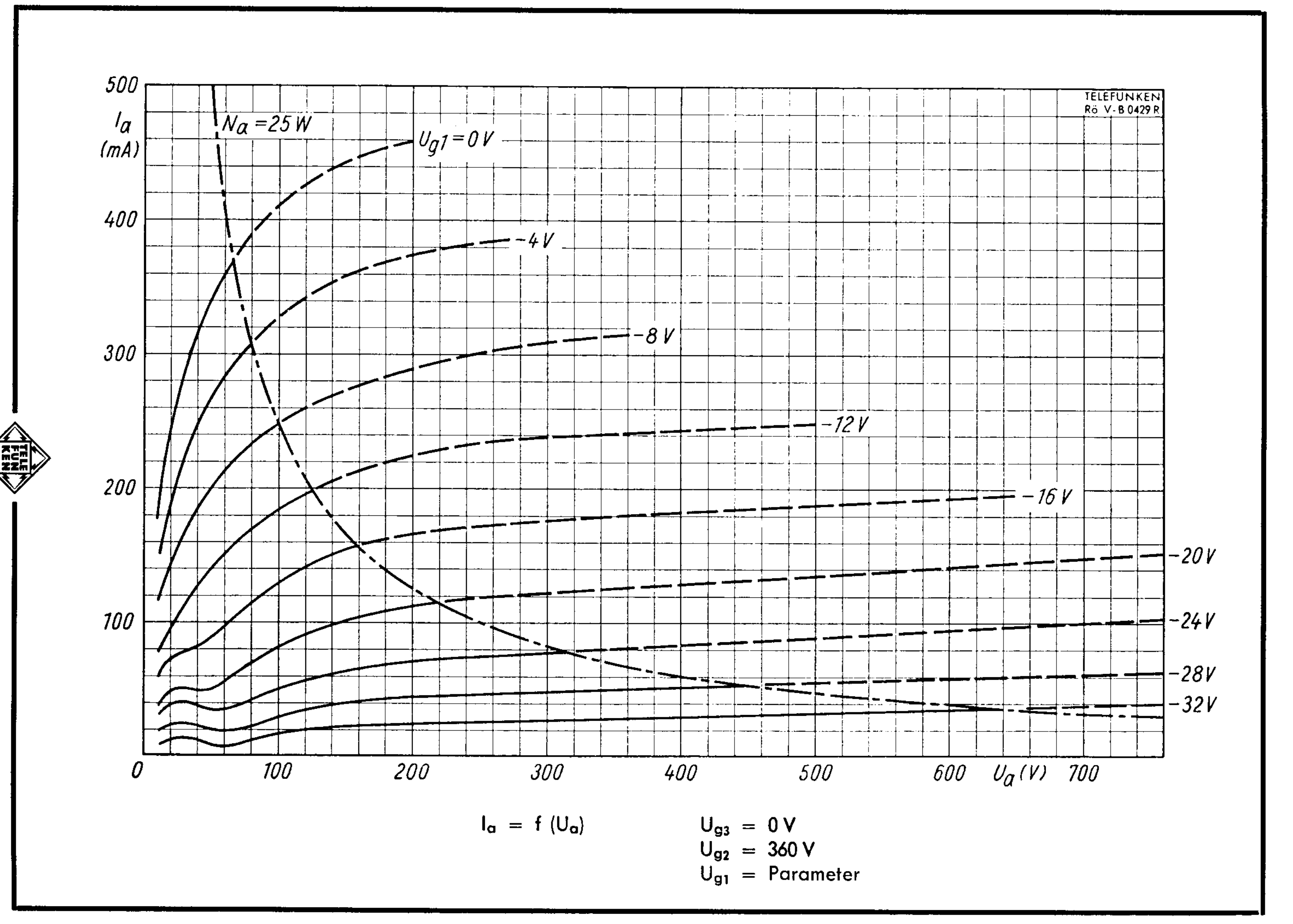
$I_a, I_{g2} = f\ (U_{g1})$

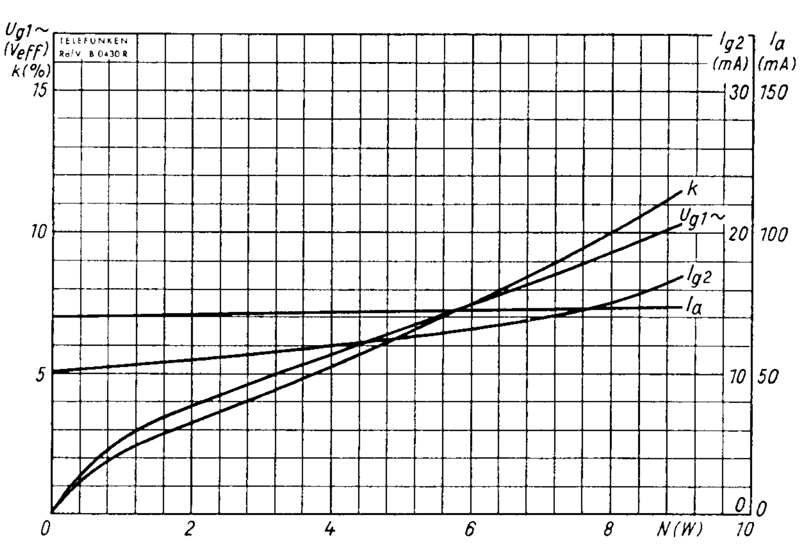
1 $U_a = 250$ V, $U_{g3} = 0$ V, $U_{g2} = 250$ V
2 $U_a = 350$ V, $U_{g3} = 0$ V, $U_{g2} = 375$ V
3 $U_a = 400$ V, $U_{g3} = 0$ V, $U_{g2} = 425$ V

——— I_a - - - - I_{g2}


TELEFUNKEN
Rö V-B 0428 R
Ia
(mA)
300
200
100
0
100
200
300
400
Ua (V)
500
Na=25W
Ug1=0V
-5V
-10V
-15V
-20V
-25V
Ia = f (Ua)
Ug3 = 0 V
Ug2 = 250 V
Ug1 = Parameter

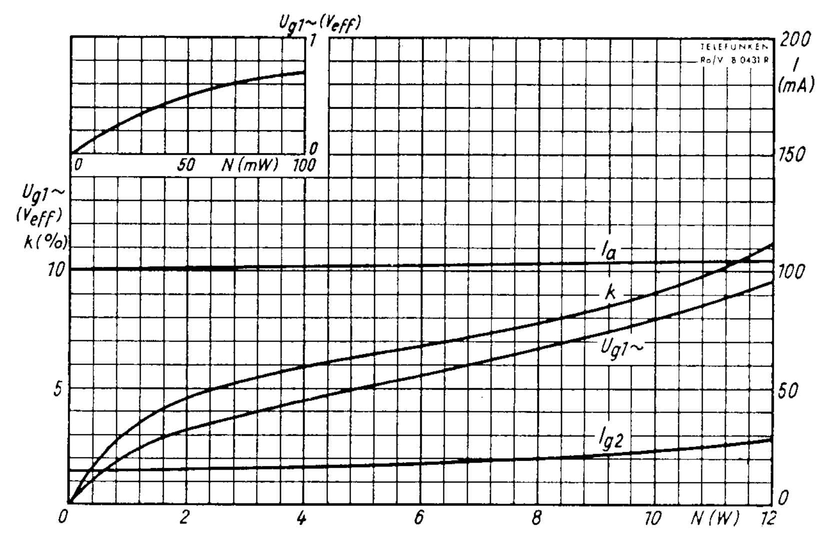
TELEFUNKEN


TELEFUNKEN
Rö V-B 0429 R
Na = 25 W
Ug1 = 0 V
-4 V
-8 V
-12 V
-16 V
-20 V
-24 V
-28 V
-32 V
Ia (mA)
500
400
300
200
100
0
100
200
300
400
500
600
700
Ua (V)
Ia = f (Ua)
Ug3 = 0 V
Ug2 = 360 V
Ug1 = Parameter
TELE FUN KEN



Eintakt-A-Betrieb · Class-A-amplifier

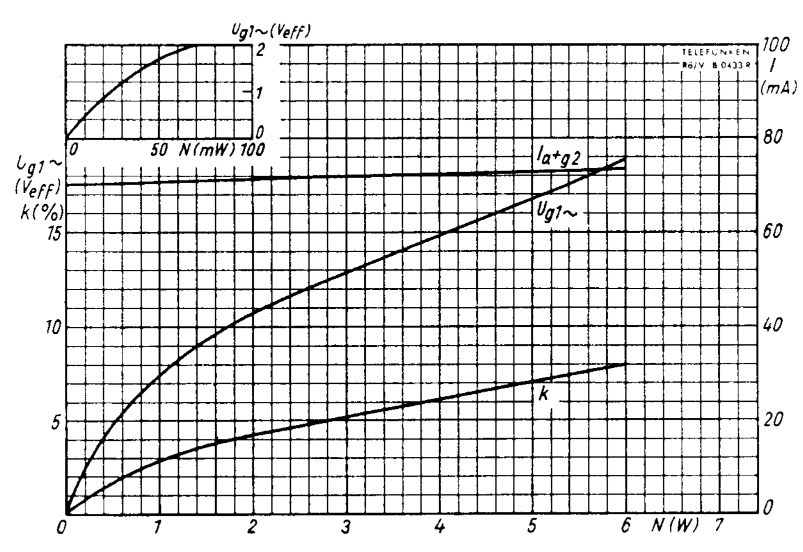
U_b = 265 V	U_{g3} = 0 V	R_a = 3 kΩ
U_a = 250 V	U_{g1} = −14,5 V	R_{g2} = 2 kΩ



Eintakt-A-Betrieb · Class-A-amplifier

U_b = 265 V	U_{g3} = 0 V	R_a = 2 kΩ
U_a = 250 V	U_{g1} = −13,5 V	R_{g2} = 0 kΩ

TELEFUNKEN

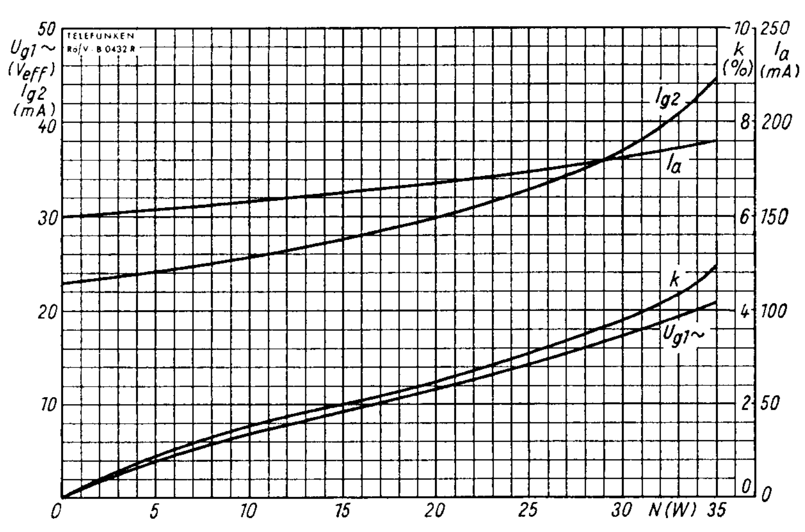


Eintakt-A-Betrieb als Triode, g_2 an a

Connected as triode, g_2 to a, class-A-amplifier

U_b = 375 V R_k = 370 Ω

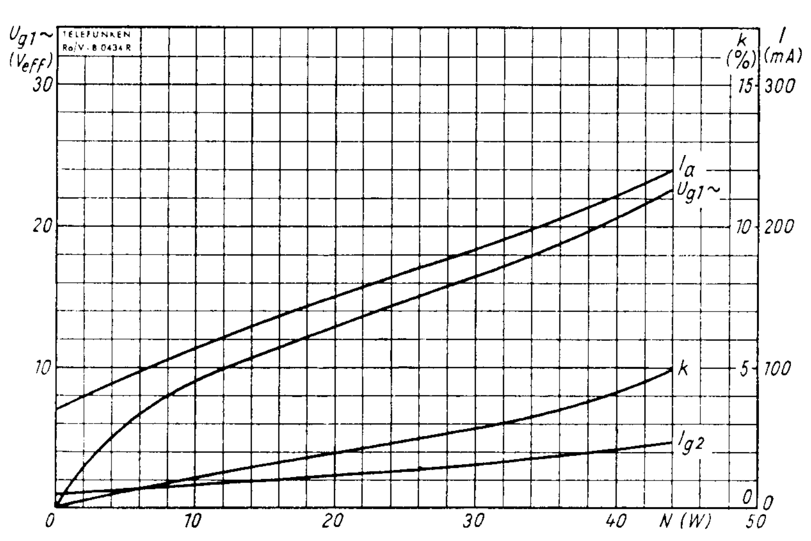
U_{g3} = 0 V R_a = 3 kΩ



2 Röhren in Gegentakt-AB-Betrieb · 2 tubes push-pull, class AB

U_b = 375 V R_k = 130 Ω

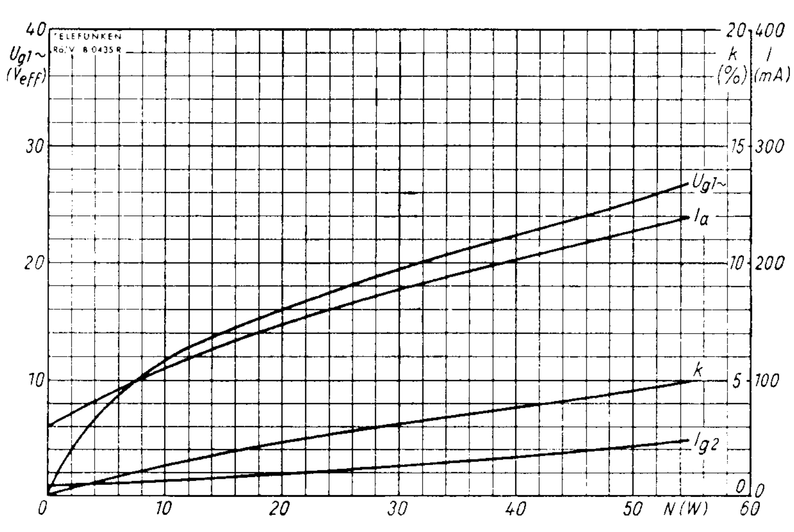
R_{g2} = 470 Ω R_{aa} = 3,4 kΩ



2 Röhren in Gegentakt-B-Betrieb · 2 tubes push-pull, class B

U_b = 375 V R_{g2} = 470 Ω

U_{g1} = −32 V R_{aa} = 2,8 kΩ

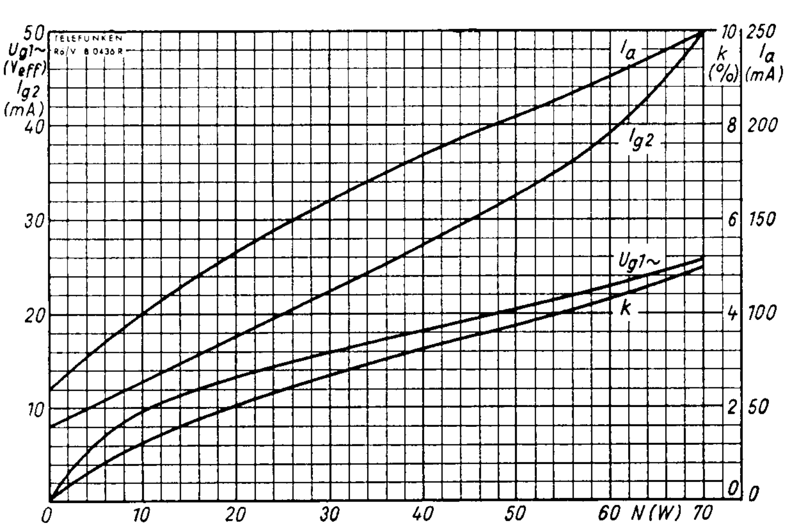


2 Röhren in Gegentakt-B-Betrieb · 2 tubes push-pull, class B

U_b = 425 V R_{g2} = 1 kΩ

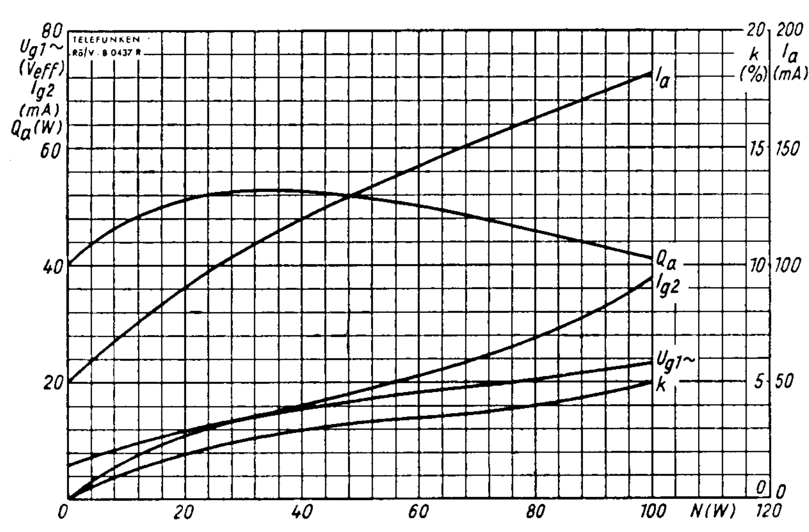
U_{g1} = −38 V R_{aa} = 3,4 kΩ

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2 Röhren in Gegentakt-B-Betrieb · 2 tubes push-pull, class B

U_{ba} = 500 V	U_{g3} = 0 V	R_{g2} = 750 Ω
U_{bg2} = 400 V	U_{g1} = −36 V	R_{aa} = 4 kΩ



2 Röhren in Gegentakt-B-Betrieb · 2 tubes push-pull, class B

U_{ba} = 800 V	U_{g3} = 0 V	R_{g2} = 750 Ω
U_{bg2} = 400 V	U_{g1} = −39 V	R_{aa} = 11 kΩ

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